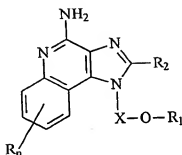


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

$\text{R}_1$  is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

$-\text{R}_4\text{-heteroaryl}$ ; and

$-\text{R}_4\text{-heterocyclyl}$ ;

$\text{R}_2$  is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

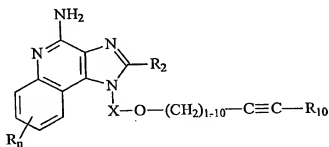
-halogen;

- N(R<sub>3</sub>)<sub>2</sub>;
- CO-N(R<sub>3</sub>)<sub>2</sub>;
- CO-C<sub>1-10</sub> alkyl;
- CO-O-C<sub>1-10</sub> alkyl;
- N<sub>3</sub>;
- aryl;
- heteroaryl;
- heterocyclyl;
- CO-aryl; and
- CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;  
 each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;  
 each Y is independently -O- or -S(O)<sub>0-2</sub>;  
 n is 0 to 4; and  
 each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
 or a pharmaceutically acceptable salt thereof.

2. A compound or salt of claim 1 wherein R<sub>1</sub> is -(CH<sub>2</sub>)<sub>0-3</sub>-heteroaryl.
3. A compound or salt of claim 2 wherein the heteroaryl is selected from the group consisting of 2-pyridyl, 3-pyridyl, 4-pyridyl, 2-thiazolyl, 2-pyrimidinyl, 4-pyrimidinyl, 4-triazolyl, 2-benzofuranyl, 2-indolyl, 3-carbazolyl, 2-furanyl, 4-isoquinolyl, 4-isoxazolyl, and 4-pyrazolyl
4. A compound or salt of claim 1 wherein X is -CH(alkyl)(alkyl)- wherein the alkyl groups can be the same or different.
5. A compound or salt of claim 1 wherein X is -CH<sub>2</sub>-CH<sub>2</sub>-.

6. A compound or salt of claim 1 wherein X is  $-\text{CH}(\text{C}_2\text{H}_5)(\text{CH}_2)-$ .
7. A compound or salt of claim 1 wherein  $\text{R}_2$  is H.
- 5 8. A compound or salt of claim 1 wherein  $\text{R}_2$  is alkyl.
9. A compound or salt of claim 1 wherein  $\text{R}_2$  is  $-\text{alkyl}-\text{O}-\text{alkyl}$ .
10. A compound of the formula (II)
- 10



(II)

- wherein:
- 15 X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;
  - $\text{R}_{10}$  is selected from the group consisting of heteroaryl and heterocyclyl;
  - $\text{R}_2$  is selected from the group consisting of:
    - hydrogen;
    - alkyl;
    - alkenyl;
    - 20 -aryl;
    - heteroaryl;
    - heterocyclyl;
    - alkyl-Y-alkyl;
    - alkyl-Y-alkenyl;
    - 25 -alkyl-Y-aryl; and
    - alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH;
  - halogen;
  - N(R<sub>3</sub>)<sub>2</sub>;
  - CO-N(R<sub>3</sub>)<sub>2</sub>;
  - CO-C<sub>1-10</sub> alkyl;
  - CO-O-C<sub>1-10</sub> alkyl;
  - N<sub>3</sub>;
  - aryl;
  - heteroaryl;
  - heterocyclyl;
  - CO-aryl; and
  - CO-heteroaryl;
- n is 0 to 4;
- each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;
- each Y is independently -O- or -S(O)<sub>0.2</sub>-; and
- each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.
11. A compound or salt of claim 10 wherein R<sub>10</sub> is selected from the group consisting of heteroaryl and substituted heteroaryl.
12. A compound of claim 11 wherein the heteroaryl is selected from the group consisting of 2-pyridyl, 3-pyridyl, 4-pyridyl, 2-thiazolyl, 4-pyrazolyl, 3-furanyl, 2-thienyl, and 2-pyrimidinyl.
13. A compound or salt of claim 10 wherein X is -CH(alkyl)(alkyl)-, wherein the alkyl groups can be the same or different.
14. A compound or salt of claim 10 wherein X is -CH<sub>2</sub>-CH<sub>2</sub>-.
15. A compound or salt of claim 10 wherein X is -CH(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>)-.

16. A compound or salt of claim 10 wherein R<sub>2</sub> is H, alkyl, or alkyl-O-alkyl.

17. A compound selected from the group consisting of:

5

1-(2-([3-(isoquinolin-4-yl)-2-propynyl]oxy)ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-(2-([3-(1,3-thiazol-2-yl)-2-propynyl]oxy)ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

10

1-{2-[3-(1*H*-4-pyrazolyl)propoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyrimidin-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyridin-4-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyridin-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

15

1-{2-[3-(1,3-thiazol-2-yl)propoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyridin-5-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(3-pyrimidin-5-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-{2-[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

20

1-{2-[(1-benzyl-1*H*-1,2,3-triazol-5-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

1-[2-({1-[(phenylsulfanyl)methyl]-1*H*-1,2,3-triazol-4-yl)methoxy}ethyl)-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

1-[2-({1-[(phenylsulfanyl)methyl]-1*H*-1,2,3-triazol-5-yl)methoxy}ethyl)-1*H*-imidazo[4,5-*c*]quinoline-4-amine;

25

1-[2-(benzo[*b*]furan-2-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-3-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-2-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-[2-(pyridin-4-ylmethoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

30

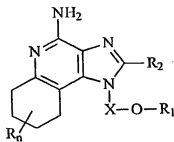
1-{2-[(3,5-dimethylisoxazol-4-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-(2-([3-(pyrimidin-2-yl)-2-propynyl]oxy)ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;

1-(2-{{3-(pyrid-4-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-(2-{{3-(fur-3-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 4-{3-[2-(4-amino-1*H*-imidazo[4,5-*c*]quinolin-1-yl)ethoxy]-propyn-1-yl}  
 thiophen-2-ylcarboxaldehyde;  
 1-(2-{{3-(pyrid-2-yl)-2-propynyl}oxy}ethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-(2-methyl-1-[(pyrid-2-yloxy)methyl]propyl)-1*H*-imidazo[4,5-*c*]quinoline-4-  
 amine;  
 1-{1-[(pyrid-2-yloxy)methyl]propyl}-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 1-[2-(9*H*-carbazol-3-yloxy)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(3-thien-2-ylprop-2-ynyl)oxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(1-methyl-1*H*-indol-2-yl)methoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-  
 amine;  
 1-[2-(3-thien-2-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 2-methyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 2-butyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-*c*]quinoline-4-amine;  
 1-[2-(tetrahydrofuran-2-ylmethoxy)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-{2-[(5-chloro-1-benzothien-3-yl)methoxy]propyl}-1*H*-imidazo[4,5-*c*]quinolin-4-  
 amine;  
 1-{2-[(3-nitropyridin-2-yl)oxy]propyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine;  
 1-(2-methyl-1-{{(3-nitropyridin-2-yl)oxy}methyl}propyl)-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine;  
 1-(1-{{(5-chloro-1-benzothien-3-yl)methoxy}methyl}-2-methylpropyl)-1*H*-  
 imidazo[4,5-*c*]quinolin-4-amine;  
 2-(2-methoxyethyl)-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine; and  
 2-methyl-1-[2-(3-pyridin-3-ylpropoxy)ethyl]-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-  
*c*]quinolin-4-amine;

or a pharmaceutically acceptable salt thereof.

18. A compound of the formula (III)



(III)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

- heteroaryl;
- heterocyclyl;
- R<sub>4</sub>-heteroaryl; and
- R<sub>4</sub>-heterocyclyl;

R<sub>2</sub> is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;
- aryl;
- heteroaryl;
- heterocyclyl;
- alkyl-Y-alkyl;
- alkyl-Y-alkenyl;
- alkyl-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
  - OH;
  - halogen;
  - N(R<sub>3</sub>)<sub>2</sub>;
  - CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;  
 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -heteroaryl;  
 -heterocyclyl;  
 -CO-aryl; and  
 -CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

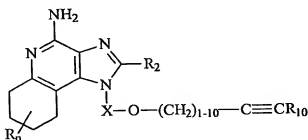
n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

19. A compound or salt of claim 18 wherein R<sub>2</sub> is H or alkyl.

20. A compound or salt of claim 18 wherein R<sub>2</sub> is -alkyl-O-alkyl.

21. A compound of the formula (IV):



(IV)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>10</sub> is selected from the group consisting of heteroaryl and heterocyclyl;



R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

22. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 1 and a pharmaceutically acceptable carrier.
- 5 23. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 10 and a pharmaceutically acceptable carrier.
24. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 17 and a pharmaceutically acceptable carrier.
- 10 25. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
26. The method of claim 25 wherein the cytokine is IFN- $\alpha$ .
- 15 27. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.
28. The method of claim 27 wherein the cytokine is IFN- $\alpha$ .
- 20 29. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
30. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.
- 25 31. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.
32. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 10 to the animal.
- 30

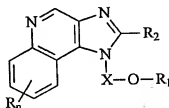
33. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

34. The method of claim 33 wherein the cytokine is IFN- $\alpha$ .

35. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

36. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 17 to the animal.

37. A compound of the formula (V):



(V)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl;

-R<sub>4</sub>-heterocyclyl; and

-(CH<sub>2</sub>)<sub>1-10</sub>-C $\equiv$ C-R<sub>10</sub>;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;  
-heterocyclyl;  
-alkyl-Y-alkyl;  
-alkyl-Y-alkenyl;  
-alkyl-Y-aryl; and  
- alkyl or alkenyl substituted by one or more substituents selected  
from the group consisting of:

-OH;  
-halogen;  
-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-C<sub>1-10</sub> alkyl;  
-CO-O-C<sub>1-10</sub> alkyl;  
-N<sub>3</sub>;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-CO-aryl; and  
-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O-  
groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

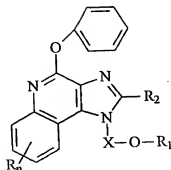
R<sub>10</sub> is heteroaryl or heterocyclyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub>  
alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof.

38. A compound of the formula (VI):



(VI)

5        wherein:        X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

$\text{R}_1$  is selected from the group consisting of:

                             -heteroaryl;

                             -heterocyclyl;

$-\text{R}_4\text{-heteroaryl}$ ;

10                         $-\text{R}_4\text{-heterocyclyl}$ ; and

$-(\text{CH}_2)_{1-10}\text{-C}\equiv\text{C-R}_{10}$ ;

$\text{R}_2$  is selected from the group consisting of:

                             -hydrogen;

                             -alkyl;

15                        -alkenyl;

                             -aryl;

                             -heteroaryl;

                             -heterocyclyl;

                             -alkyl-Y-alkyl;

20                        -alkyl-Y-alkenyl;

                             -alkyl-Y-aryl; and

                             -alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

                             -OH;

25                        -halogen;

$-\text{N}(\text{R}_3)_2$ ;

-CO-N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-C<sub>1-10</sub> alkyl;  
 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -heteroaryl;  
 -heterocyclyl;  
 -CO-aryl; and  
 -CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

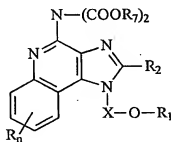
R<sub>10</sub> is heteroaryl or heterocyclyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

39. A compound of the formula (VIII):



(VIII)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;  
 -heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

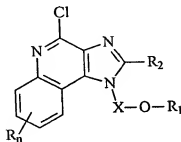
each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4;

each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; and  
**R**<sub>7</sub> is *tert*-butyl or benzyl;  
 or a pharmaceutically acceptable salt thereof.

5

40. A compound of the formula (IX)



(IX)

10

wherein: **X** is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

**R**<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

15

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

**R**<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

20

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

25

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and



- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH;
- halogen;
- N(R<sub>3</sub>)<sub>2</sub>;
- CO-N(R<sub>3</sub>)<sub>2</sub>;
- CO-C<sub>1-10</sub> alkyl;
- CO-O-C<sub>1-10</sub> alkyl;
- N<sub>3</sub>;
- aryl;
- heteroaryl;
- heterocyclyl;
- CO-aryl; and
- CO-heteroaryl;

**R<sub>4</sub>** is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

each **R<sub>3</sub>** is independently H or C<sub>1-10</sub> alkyl;

each **Y** is independently -O- or -S(O)<sub>0-2</sub>;

**n** is 0 to 4; and

each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

41. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 18 and a pharmaceutically acceptable carrier.

42. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

43. The method of claim 42 wherein the cytokine is IFN- $\alpha$ .

44. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

45. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

46. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 21 and a pharmaceutically acceptable carrier.

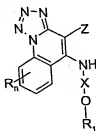
47. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.

48. The method of claim 47 wherein the cytokine is IFN- $\alpha$ .

49. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.

50. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.

51. A compound of the formula (VII):



(VII)

wherein:  $Z$  is  $NH_2$  or  $NO_2$ ;

$X$  is  $-CHR_3$ -,  $-CHR_3$ -alkyl-, or  $-CHR_3$ -alkenyl-;

$R_1$  is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

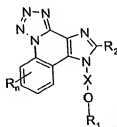
each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

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52. A compound of the formula (XLIV):



(XLIV)

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wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-heteroaryl;

-heterocyclyl;

-R<sub>4</sub>- heteroaryl; and

-R<sub>4</sub>-heterocyclyl;

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R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

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-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;  
-alkyl-Y-aryl; and  
-alkyl or alkenyl substituted by one or more substituents selected  
from the group consisting of:

-OH;  
-halogen;  
-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-C<sub>1-10</sub> alkyl;  
-CO-O-C<sub>1-10</sub> alkyl;  
-N<sub>3</sub>;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-CO-aryl; and  
-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more -O-  
groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

each Y is independently -O- or -S(O)<sub>0-2</sub>;

n is 0 to 4; and

each R present is independently selected from the group consisting of C<sub>1-10</sub>  
alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof.